

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002901**Date Inspected:** 30-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** C.M. Chen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Deck Sections**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Mahlon Lindenmuth, arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following:

QA Inspector, Lindenmuth, observed the work being performed in Bay 2 of the New OBG. ZPMC personnel were performing various functions related to the fabrication of the OBG Side Plates and Bottom Plates as well as the deck sections in the jig fixture. The fabrication performed includes but is not limited to the preparation of areas where temporary welds for strongbacks are located, bevel preparation and welding of the Complete Joint Penetration welds (CJP) on Side Plates and Bottom Plates, heat straightening of Side Plates and Bottom Plates.

South Jig Fixture:

*Segment 4AE- Caltrans QA Inspector, Lindenmuth, observed ZPMC personnel had completed the welding of the root pass joining the segments 4AE-E7 and 4AE-D6. The weld root pass is performed using the FCAW weld process and consists of one weld pass (layer) the fill passes will be completed using the SAW weld process. The joint is a single V groove weld and utilizes a ceramic backing.

*Segment 3AE- Caltrans QA Inspector, Lindenmuth, observed ZPMC personnel had completed the welding of the CJP joining the segments 3AE-C5 and 3AE-D6. The joint is a single V groove weld and utilizes a ceramic backing. The FCAW weld process is used for the root pass and the SAW weld process is used for the the fill passes and cover.

ZPMC personnel were observed grinding on the base metal adjacent to the groove weld. The grinding is

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performed so that Ultrasonic Testing (UT) of the joint can be performed on a smooth surface.

Shop Welding:

*Various Deck Panels- Caltrans QA Inspector, Lindenmuth, observed ZPMC personnel flame cutting (tracked) various Deck Panel edges and subsequently prepping the cut edges, by grinding, with bevels. The edges will be a part of the CJP welds joining the Deck Panels together.

*Magnetic Particle Testing (MT) Side Panels/Bottom Plates- Caltrans QA Inspector, Lindenmuth, observed ZPMC QC personnel performing MT on the base metal where strongbacks have been removed. The strongbacks are located adjacent the CJP weld splices on the root side. The strongbacks are used as aids in preventing distortion while the weld the splice is being welded.

General Note: All work observed, unless otherwise noted, appeared to comply with the contract documents.

Summary of Conversations:

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Lindenmuth, Mahlon	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
